

# Integrating Biodiversity and health from a One Health perspective: from theory to practice

Tentative program

WORKSHOP SERIES  
BIODIVERSITY AND HEALTH

DECEMBER 2018

## LEAD INSTRUCTORS

Prepared, organized and delivered by the Global Health Asia Institute

- **Prof. Bruce A. Wilcox** | Chief Scientist at GHAI and a founder of the field of conservation biology, he also was the founding editor of EcoHealth and first Chief Executive of the International Association for Ecology and Health. His current research focus is integrative research and its applications in environmental health, tropical disease research, and global health.
- **Pierre Echaubard** | Chief Technical Officer at GHAI, is a health ecology researcher. He specializes in infectious diseases ecology and evolution, vector-borne diseases adaptive management and the linkages between biodiversity and health.

## CONTACT

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## DATE AND DURATION:

Friday, December 21st  
Time: 8:30 - 17:00 hrs

## VENUE

Wachiranusorn building, fl. 2, room 202,  
Faculty of Agriculture, Kasetsart University,  
Bangkok

## TARGET AND ESTIMATED NUMBER OF PARTICIPANTS

Approximately 20-30 students, scientists and conservationists.



## IMPORTANCE & RATIONALE OF THE CURRICULUM

New developments in One Health science and practice offer significant potential to improve prevention and control of zoonotic and vector borne diseases. Moreover, the new approaches offered by One Health for addressing problems at the human-animal-environment interface also apply to biodiversity conservation, sustainable livelihoods, and health and well-being along with other Sustainable Development Goals. Therefore, health, conservation, and sustainable development can be addressed together, which will improve the efficiency and reduce costs of interventions.

These One Health developments have only begun to be incorporated into university curriculums or text books in human and veterinary medicine, public health, natural resources management, and other fields. Also, many are published as research findings and are not yet fully adapted to nor described with terminology or examples familiar to health, conservation, or development researchers and practitioners.



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This workshop is intended to fill this gap by providing veterinary and other health and wildlife conservation scientists and professionals the opportunity to learn and begin employing these new approaches in their work.

### LEARNING OBJECTIVES

By the end of the workshop participants will become familiar with the following:

1. Historical background, similarities and differences between, and current development status of integrated health-environment fields, including Ecosystem Health, Ecohealth and Planetary Health, associated with One Health.
2. Fundamental principles of One Health applicable to addressing research and intervention challenges of emergence of zoonotic and vector borne diseases and associated challenges such as antimicrobial resistance, insecticide resistance, livestock-wildlife disease transmission.
3. How these problems and their solutions also apply to biodiversity conservation, sustainable livelihoods, and health and well-being along with other Sustainable Development Goals.
4. Prominent case examples of zoonotic diseases and disease outbreaks, as well as related chronic disease problems, described from a One Health perspective.
5. Most recent development guidelines, procedures and protocols for One Health interventions and remaining gaps and needs.
6. Current directions and pathways being undertaken internationally and in Southeast Asia to address these gaps and needs.

### TENTATIVE SCHEDULE & CONTENT

#### 8:30 - 9:00 OPENING REMARKS

- Introduction and workshop objectives

#### 9:00 - 12:00 ONE HEALTH FUNDAMENTALS

- One Health and Associated Fields: Background Overview and Update
- State of Science and Practice: Knowledge and Knowledge Gaps

#### 10:30 - 10:45 COFFEE BREAK

- One Health and Associated Fields: Background Overview and Update
- State of Science and Practice: Knowledge and Knowledge Gaps
- Fundamentals of OH and related fields applicable to Infectious and Non-Communicable Diseases
- Applicability biodiversity conservation, sustainable livelihoods, and health
- One Health and Sustainable Development Goals.

#### 12:15 - 13:00 LUNCH BREAK

#### 13:00 - 15:00 OPERATIONALIZING OH

- Operationalizing One Health: Case examples of Emerging Zoonotic and Vector Borne Diseases.
- Intervention procedures, tools and protocols: case examples.
- Ways forward

#### 15:00 - 15:15 COFFEE BREAK

#### 15:15 - 17:00 BREAKOUT GROUPS & APPLICATIONS

- One health Research design and Monitoring and evaluation protocol applied to audience 's current and prospective projects

#### 17:00 - 17:15 CLOSING REMARKS

- Wrap up, open discussions, feedbacks and planning for next steps.

## EXPECTED BENEFITS FOR THE AUDIENCE

It is expected that workshop participants' will benefit as follows:

1. A clearer understanding the scientific fundamentals and application of One Health in practice.
2. A deepened understanding of One Health that will allow participants to further incorporate new thinking and methods in their work, and thereby improve outcome of their research and interventions.
3. An increased capacity for cross-disciplinary thinking providing a basis further collaborative research and action One Health.
4. An increased capacity for more effectively framing research problems and interventions.
5. An improved capacity to design, plan and manage projects.

## KEY REFERENCES

Bruce A. Wilcox, Michel de Garine-Wichatitsky & Pierre Echaubard. *Vector Borne Disease and Climate Change Adaptation in African Dryland Social-Ecological Systems*. *Infectious Diseases of Poverty*, in press.

Bruce A. Wilcox, Carsten H. Richter, Jennifer A. Steele, Pierre Echaubard. *The role of biodiversity and traditional knowledge in vector borne disease control and climate change adaptation*. *Infectious Disease of Poverty*, in press.

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